

SARL NEWS - SUNDAY 09 December 2012

You are listening to ZS6SRL, the official radio station of the South African Radio League, the national body for amateur radio in South Africa. The SARL broadcasts a news bulletin every Sunday at 08:15 CAT in Afrikaans and at 08:30 CAT in English. To listen to a web stream, visit www.sarl.org.za, click on 'Amateur Radio Today' and follow the links for details. For audio via Echolink, connect to ZS0JPL-R.

You can download this bulletin and previous ones from www.sarl.org.za and also subscribe there to receive future bulletins by e-mail.

Your newsreader this morning is (name), (call sign), on 145,725 from Pretoria, with relays on 7,066 MHz and 3,695 MHz SSB. (Other news readers change to suit).

SILENT KEY

It is with regret that it must be announced that the key of E I Terblanche, ZR2ET, became silent recently.

We extend our deepest sympathies to the relatives and friends of the deceased.

(PAUSE)

IN THE NEWS TODAY:

THE SARL ANTENNA DEFENCE FUND REACHES 10% OF ITS TARGET
ZS WORKED ALL GRID SQUARES AWARD

TWO EXPERT WORKGROUPS TO BE ESTABLISHED BY THE SARL

DYNACUBE - Denel Dynamics Interns make good progress

You are listening to ZS6SRL. Stay tuned for more details on these and other important and interesting items.

THE SARL ANTENNA DEFENCE FUND REACHES 10% OF ITS TARGET

The SARL Antenna defence fund, launched last weekend, has already reached almost 10% of its R50 000 target. The fund currently stands at R4 800. A list of donors and details on why the SARL has launched the fund and why you should contribute can be found on www.sarl.org.za. Clubs are encouraged to follow the Kempton Park Amateur Radio Technical Society which made a handsome donation the past week. Thanks to KARTS and all radio amateurs who have thus far contributed. Your support for amateur radio is much appreciated.

TWO EXPERT WORKGROUPS TO BE ESTABLISHED BY THE SARL

At the recent meeting of the Council of the SARL, it was decided to establish two expert workgroups to focus on technical and regulatory issues. The two groups will act in an advisory capacity to the SARL.

The Technology workgroup will focus on new developments; interact with the various SABS technical committees to monitor the development of standards that may impact on amateur radio and keep the amateur radio community abreast of new developments. One of the immediate tasks will be to coordinate the proposed 5 MHz sharing and propagation research project.

The Regulatory workgroup will focus on various regulatory issues such as frequency allocations, environmental and zoning regulations and building standards as well as any other regulations that may impact on amateurs radio.

The two workgroups will meet for the first time by teleconference in early January when the final terms of reference and a work programme will be discussed and finalised. Radio Amateurs with the expertise and/or interest in these or related fields and who are interested in joining one of the workgroups are invited to submit their names, background and contact details to the secretary of the SARL to secretary@sarl.org.za.

ZS WORKED ALL GRID SQUARES AWARD

Congratulations to Pieter Jacobs, ZS6XT, for achieving the top ZS WAGS award for contacting all 83 grid squares in South Africa. So far only Pieter and Pierre, ZS6A (was ZS6BB), have achieved the highest level of this award.

The ZS Worked All Grid Squares (ZS WAGS) award was created in 2008 to encourage local on-air activity, and the award is currently managed by the Sandton Amateur Radio Club.

Over 50 awards have been granted since inception, and so far only two amateurs have reached the maximum of 83 grids. The full rules and current rankings may be obtained on the website of the Sandton ARC at www.zs6stn.org.za.

The objective of the award is to contact as many of the South African grid squares as possible. The “Hunter” award ranges from the entry-level 25 grids up to the maximum of 83 grids, and an award can also be endorsed for specific bands or modes of operation, such as 40 m only, satellite, QRP, etc. The “Activator” award is also granted to amateurs who make themselves available for at least 10 contacts from any of the less-populated grid squares.

CLUB AFFILIATION

The Southern Suburbs Amateur Radio Club, south of Johannesburg, affiliated last week with the SARL. The total number of affiliated clubs are now 31. For a list of affiliated clubs, visit www.sarl.org.za/public/ClubTalk/default.asp.

NEW MEMBER

The SARL welcomes Isak du Plessis, ZSL153, as a new member.

DYNACUBE - Denel Dynamics Interns make good progress

The 2012 Interns from the Denel Dynamics Engineering Academy of Learning have made good progress with their DynaCube Satellite project. The Interns are

all engineers who last year graduated from various universities in South Africa and spend a year working on a project before they are assigned to various departments in the company. The 2012 Interns were tasked with designing, manufacturing and commissioning a 1 U Cube Satellite and its associated ground support systems. It was required that the satellite be launched into orbit and perform a relevant space science mission. The launch would be provided by an external launch provider.

The 20 Interns selected to participate in the 2012 programme were divided into three project teams. Each team was tasked with specific outcomes.

Team Ground Zero was responsible for the Ground Control Station as well as communications equipment on-board the satellite.

Team Virtuoso was responsible for the On-board Computer (OBC), the power system, the satellite structure and telemetry data.

It was decided, in the early stages of the project, that a duplicate satellite should be built which will remain on Earth. This satellite would allow the team to perform software maintenance and troubleshooting before the change or update is implemented on the satellite in orbit.

The main tasks of Team Frodo were to specify the satellite payload, the required sensors, the attitude control and the launch of the satellite.

The primary payloads are particle radiation sensors and structural temperature sensors. The radiation sensors will be used to map radiation density and distribution over the South Atlantic Anomaly. This is the area on the Earth's surface where the Van Allen radiation belts are closest to the surface. Numerous satellite hardware failures have been noted over this area.

The secondary payload is a camera capable of taking images and sending them to the OBC for storage. It was decided that a VGA serial JPEG camera would be used, as it would be able to take photographs fast enough to prevent blurring, whilst also doing its own image processing.

The launch will most likely only happen close to the end of 2013 and possibly only as late as the end of 2014. The funding of the launch, which may be as high as R1 300 000, is a challenge that needs to be overcome.

All systems have been tested and are now ready for integration. Although the Interns have come to the end of their year and will start their careers in various departments of Denel Dynamics, they are dedicated to complete the project in their free time.

Currently three members of the group have obtained their amateur radio license while a few more members of the team are planning to write the May examination.

DynaCube frequencies have been coordinated by the IARU Satellite Advisory Panel to operate on a downlink of 145,980 MHz, an uplink on 435,050 MHz with

a tracking beacon on 145,840 MHz.

2013 ARRL HARDCOVER HANDBOOK NOW IN SOUTH AFRICA

A limited number of the ARRL 2013 hardcover handbooks are now available from the South African Amateur Radio Development Trust. A lot has changed since the Handbook was first published in 1926. But just as was said of the ninth edition can be said of this 90th edition: Anyone who is at all interested in the technical side of radio can ill afford to be without The Radio Amateur's Handbook.

New content included in this latest edition includes

- . New antenna projects, including a Low-band Quad, Delta Loops, Coaxial Dipoles for VHF or UHF, and a Skeleton Slot for 14-30 MHz . New material on power supply polarity protection circuits . 144 MHz band-pass filter for reducing harmonics . Updated Pebble Crusher QRP transmitter construction project . Design software on CD-ROM, including ElsieT filter and Pi-El matching networks .and more!

The book is available at R740 plus R60 packing and posting. SARL members get a special discount. SARL members pay only R670 plus R60 packing and posting.

CONTEST NEWS

The November leg of the 2012 SARL National Field Day was held on 17 and 18 November and 19 logs were received. The complete results have been published in HF Happenings 534.

The results are:

Class A - Multi Operator, Field Station 1st West Rand ARC, ZS6WR, 136 680 points; 2nd Bloemfontein ARC, ZS4BFN, 97 680 points; 3rd Sasolburg ARC, ZS4SRK, and Pretoria ARC, ZS6PTA, 61 440 points each.

Class B - Multi Operator, QRP 1st East Rand ARC, ZS6ERB, 37 440 points.

Class C - Single Operator, Field Station 1st Peter Henochsberg, ZS1PMH, 13 968 points.

Class D - Single Operator, Field Station, QRP 1st Dirk Els, ZS6AKU, 10 368 points; 2nd Dennis Green, ZS4BS, 3 960 points; 3rd Eddie Leighton, ZS6BNE, 2 700 points.

Class E - General Stations 1st Pieter Jacobs, ZS6XT, 36 660 points; 2nd Pam Momberg, ZS6APT, 4 716 points; 3rd Marius Snyman, ZR6MS, 2 580 points.

Many stations lost points because of duplicate contacts, one log had 17 dupes! Congratulations to the winners.

PROPAGATION REPORT

Hannes Coetzee, ZS6BZP, reports that the expected solar activity will be at very low levels. In a period leading up to an expected solar maximum, things appear to be more like a solar minimum.

If you want to do your own frequency predictions, the expected effective sunspot number for the week will be around 51.

All the bands from 20 to 10 m will provide lots of DX fun with 15 m providing the best openings with 20 m not far behind. There will also be frequent 10 m openings.

Please visit www.spaceweather.co.za for further information.

DIARY OF EVENTS 31 January 2013 Last day for submission of nominations for councilors for the next term and motions for the 2013 AGM.

SARL News invites clubs and individuals to submit news items of interest to radio amateurs and short-wave listeners. Submit news items - if possible in both English and Afrikaans to www.sarl.org.za/newsinbox.asp, not later than the Thursday preceding the bulletin date.

The SARL also invites you to listen to Amateur Radio Today every Sunday morning at 10:00 CAT on 145,750 MHz in the Pretoria area, with relays on 7 082, 7 205 and 17 760 kHz. There is also a podcast by ZS6RO. For a web-stream and Echolink by ZS6FCS, visit www.sarl.org.za, click on 'Amateur Radio Today', go down the green column and click on 'LISTEN ON THE WEB'. A repeat transmission can be heard on Mondays at 18:30 UTC on 4 895 kHz ((A new time and frequency!)). Reception reports are invited. We are particularly interested in reports of the 4 895 kHz transmission on Mondays at 16:30 UTC as the frequency is close to the proposed new amateur allocation near 5 MHz. Reception reports from all areas in South Africa would be useful in our bid to ICASA for frequencies pilot studies. Send reports to artoday@sarl.org.za.

Sentech sponsors the transmissions on the non-amateur frequencies.

You have listened to a bulletin of the South African Radio League compiled by George Honiball, ZS6NE.

Thank you for listening, 73.

/EX